

# Rapier Series Switch Quick Install Guide



Rapier G6  
Rapier G6F  
Rapier 8/8  
Rapier 16F  
Rapier 16Fi  
Rapier 24  
Rapier 24i  
Rapier 48  
Rapier 48i

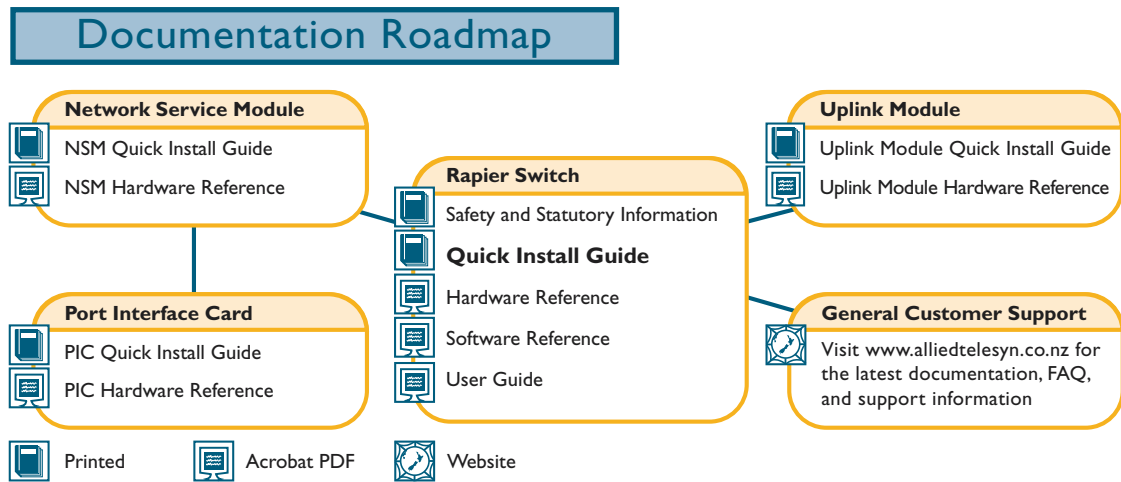
Rapier Series Switch Quick Install Guide  
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## Models Covered By This Guide

This Quick Install Guide includes information on the following models:

- Rapier G6
- Rapier G6F-LX/SC
- Rapier G6F-SX/SC
- Rapier G6F-SX/MT
- Rapier 8/8MT
- Rapier 8/8SC
- Rapier 16F-FX/MT
- Rapier 16Fi-FX/MT
- Rapier 16F-FX/SC
- Rapier 16Fi-FX/SC
- Rapier 24
- Rapier 24i
- Rapier 48
- Rapier 48i

Quick Install Guide updates can be downloaded from [www.alliedtelesyn.co.nz/support/rapier/](http://www.alliedtelesyn.co.nz/support/rapier/).

## Package Contents

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The following items are included with each Rapier Switch. Contact your sales representative if any items are damaged or missing.

- One Rapier Switch.
- One AC power cord (AC models only).
- One serial cable for connecting the switch to a terminal or PC.
- One 19 inch rack-mount kit.
- One Rapier Switch Quick Install Guide.
- One Safety and Statutory Information booklet.
- One Rapier Switch Documentation and Tools CD-ROM (which includes the complete Rapier Document Set and utilities).
- One warranty card.

## Selecting a Site

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The switch can be installed in a standard 19-inch rack or on a level surface such as a desktop or bench. When installing the switch, choose a site that:

- Allows adequate airflow around the switch and its vents.
- Is free of dust and moisture.
- Will maintain an ambient temperature range of 0-40° C (32-104° F) and a humidity range of 5-95% non-condensing.
- Has a reliable and earthed (grounded) power supply circuit, preferably dedicated and filtered.
- Does not expose cabling to sources of electrical noise, such as radio transmitters, broadband amplifiers, power lines, electric motors, and fluorescent fixtures.
- Allows easy access to the switch's power and cable connections.
- Will allow all related network devices to be connected to the switch without exceeding maximum cable length limitations. See the *Rapier Switch Hardware Reference* for cable length specifications.

# Installing the Switch

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*All AC and DC versions of this equipment must be earthed.*

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## Follow these steps to install the switch:

### 1. Before installing the switch, read the safety information

For safety information, see the *Safety and Statutory Information* booklet. A copy of this booklet is supplied with each switch, and can also be found on the Documentation and Tools CD-ROM or at [www.alliedtelesyn.co.nz/support/rapier/](http://www.alliedtelesyn.co.nz/support/rapier/).

### 2. Gather the tools and equipment you will need

If installing a DC version of the switch, you will need a DC power source, DC supply cable, and wire strippers (see step 7).

If the switch is to be connected to a redundant power supply, you will need a redundant power supply unit and cable (see step 9).

### 3. Unpack the switch

Verify the package contents. If any items are damaged or missing, contact your sales representative.

### 4. Install expansion options

If you purchased optional Uplink Modules, a Network Service Module (NSM), or Port Interface Cards (PICs), install them now by following their individual installation guides. These guides can be found on the Documentation and Tools CD-ROM.

### 5. Place the switch in its operating location

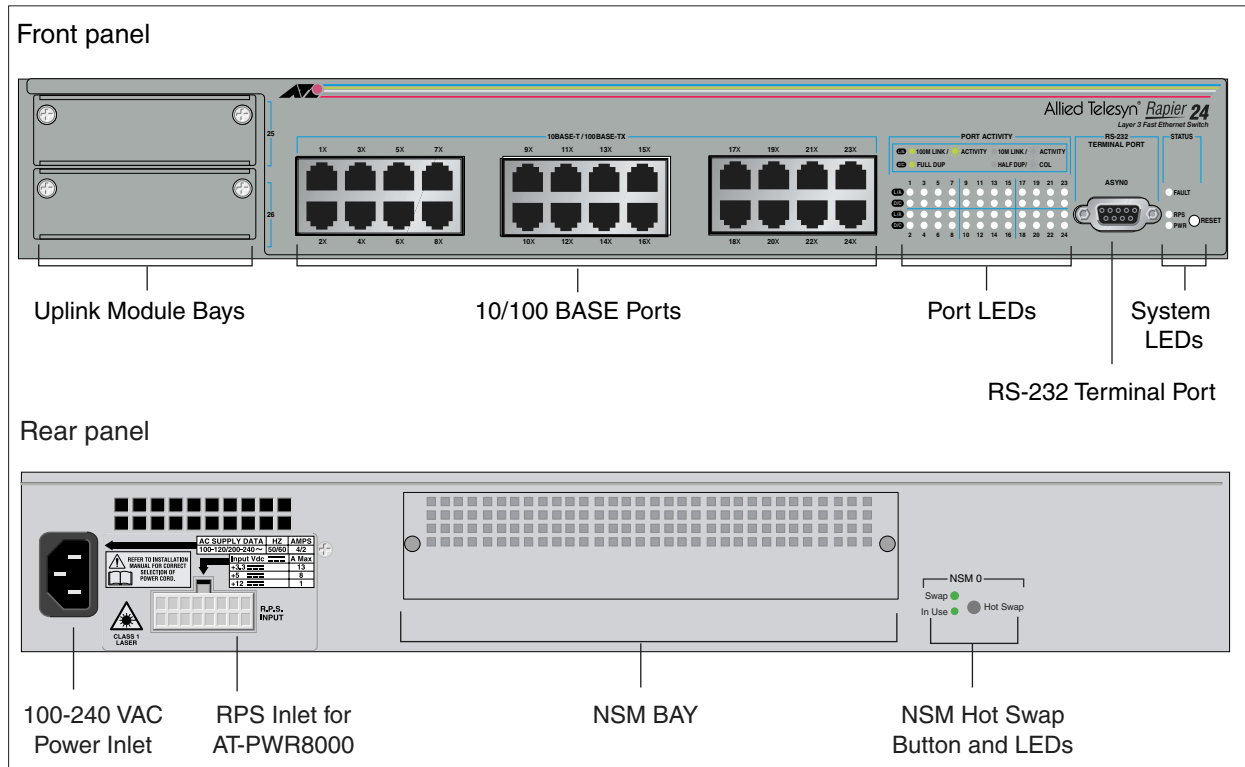
See the previous "Selecting a Site" section for guidelines on choosing a suitable location. If installing the switch in a rack:

- Remove the rubber feet.
- Attach the rack-mounting brackets.
- Mount the switch in the rack.

### 6. Apply AC power to the switch (for AC models)

Plug the power cord into the AC power connector on the switch's rear panel (see Figure 1). The Fault LED should flash for approximately 10 seconds as the switch runs internal tests. If the LED continues to flash or remains lit, refer to the *Rapier Switch Hardware Reference* for troubleshooting information.

Figure 1: Rapiert front panel and rear panel with AC power inlet.



## 7. Apply DC power to the switch (for DC models)

Read the *Safety and Statutory Information* booklet before connecting a DC power supply. A copy of this booklet is included with each switch. It is also included on the Documentation and Tools CD-ROM, or can be downloaded from [www.alliedtelesyn.co.nz/support/rapiert/](http://www.alliedtelesyn.co.nz/support/rapiert/).



**Only trained and qualified personnel should connect a DC power supply. Due to exposed terminals, DC powered switches should be installed only in Restricted Access Areas.**

DC supply cable specifications:

- Number of wires (cores): 3
- Minimum size: 2.1mm<sup>2</sup> (14 AWG)
- Minimum cable rating: 600V, 90 degrees Celsius

DC power supply specifications:

- 48 VDC (39-60 VDC is acceptable)
- Either positive grounded or negative grounded

Circuit protection:

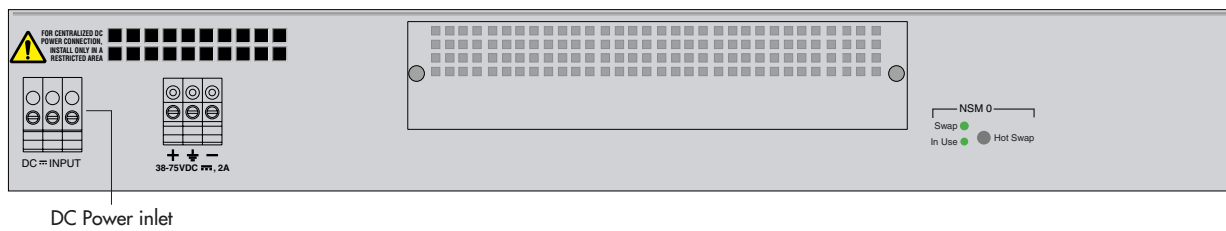
- Use a 10 Amp circuit breaker

To connect the DC supply:

- Ensure the supply cable is not live
- Strip the supply cable wires to expose 8mm (0.31 in.) of bare conductor
- At the switch, connect the ground wire to the ground terminal. These terminals can be identified by the diagram on the switch's rear panel (see Figure 2). Tighten the terminal to between 0.6 and 0.8 Nm (0.041 to 0.055 pound-force per foot)

- d) At the switch, connect the positive feed to the + (positive) terminal and the negative feed to the - (negative) terminal. Tighten the terminals to between 0.6 and 0.8 Nm (0.041 to 0.055 pound-force per foot)
- e) Ensure there are no exposed conductor strands
- f) Secure the supply cable (to the rack framework or similar object) so the connections are isolated from any force applied to the cable
- g) Ensure the circuit breaker is in the Off position
- h) Connect the supply-cable wires to the circuit breaker
- i) Energise the circuit breaker

Figure 2: DC Power inlet terminals on a Rapier 24.



The Fault LED should flash for approximately 10 seconds as the switch runs internal tests. If the LED continues to flash or remains lit, refer to the *Rapier Switch Hardware Reference* for troubleshooting information.

#### 8. Check that the Power LED on the switch's front panel lights green

If the LED fails to light, refer to the *Rapier Switch Hardware Reference* for troubleshooting information.

#### 9. Connect the Redundant Power Supply (Optional)

AC models of Rapier Switches have a Redundant Power Supply (RPS) connector on their rear panel (see Figure 1).

The Switch is designed to operate with the AT-RPS8000 RPS, which can be purchased separately. Contact your authorised Allied Telesyn distributor or reseller for more information.

#### 10. Connect the data cables

Use straight-through or cross-over Ethernet patch cables to connect the required device(s) to the switch's ports. Make sure each cable connection is secure. The switch will now perform basic Layer 2 switching functions. By default, all switch ports are members of VLAN1.

# Configuring the Switch

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Some configuration is necessary if you wish to enable the switch's advanced switching capabilities. The switch can be configured by using the Command Line Interface (CLI) or Graphical User Interface (GUI).

## Using the CLI to configure a switch

### 1. Connect a terminal or PC to the Terminal Port (ASYNO)

Using the supplied RS-232 DB9 straight-through cable, connect a VT100-compatible terminal or the COM port of a PC running a terminal emulation program such as Windows Terminal, to the RS-232 Terminal Port on the switch's front panel.

### 2. Set the communication parameters

Set the communication parameters on your terminal or terminal emulation program to:

- Baud rate: 9600
- Data bits: 8
- Parity: None
- Stop bits: 1
- Flow control: Hardware

### 3. Log in and set the password

After the switch has booted, the log-in prompt appears. If the log-in prompt doesn't appear, press [Enter] two or three times.

When the switch boots for the first time it automatically creates an account with manager privileges. The account has the log in name "manager" and the password is "friend".

At the log in prompt, enter the log in name and password.

```
Login: manager
```

```
Password: friend
```

The switch's command prompt appears and you can now configure the switch using the command line interface.



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*Change the password as soon as possible. Leaving the manager account with the default password is a serious security risk. Make sure you remember the new password as there is no way to retrieve it if it is lost.*

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Use the following command to change the account password:

```
set password
```

The Command Help lists available commands for each protocol, and their syntax. To display a list of help topics, enter:

```
help
```

To display help on a specific topic, enter:

```
help topic
```

Alternatively, type a question mark (?) at the end of a partially completed command to see a list of valid options.



See the *Rapier Switch Software Reference* for more information on start-up and configuration procedures (including a list of message definitions).

### Using the GUI to configure a switch

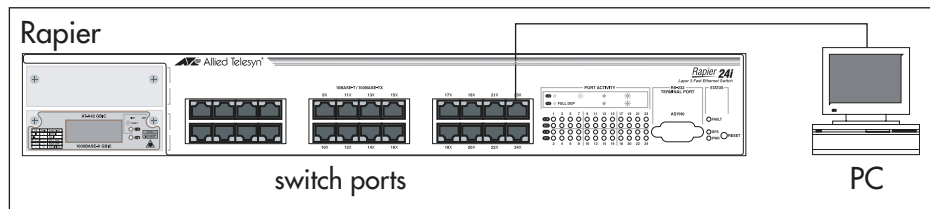
This section describes how to access the GUI from a PC via VLAN1, in order to configure the switch. It assumes that the PC and the switch are in the same subnet. By default, all switch ports are members of VLAN1.

The GUI requires a PC and web browser. Supported browsers are Internet Explorer 5.0 and greater, or Netscape 6.2.2 or 6.2.3, with JavaScript enabled. If you are using a toolbar or plug-in on your browser to block pop-ups, disable it while using the GUI. The GUI displays detailed configuration options and information in pop-up windows.

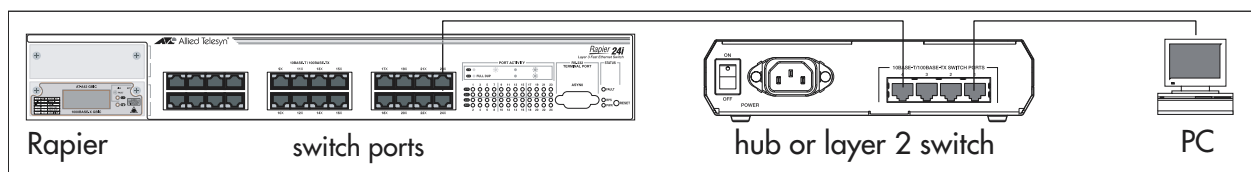
#### 1. Connect the PC to a switch port.

The PC can be connected directly, or through your LAN.

To connect the PC directly to the switch, use a straight-through Ethernet cable to connect an Ethernet card on the PC to any one of the switch ports. Note the PC's IP address and mask.



To connect via a LAN, use an Ethernet cable to connect the switch port(s) to the device(s) on the LAN. Select the LAN PC from which you wish to configure the switch. The PC should be in the same subnet as the part of the LAN that contains the switch (for example, the PC could be connected to a hub or Layer 2 switch that is directly connected to one of the switch's ports). Note the PC's IP address and mask.



#### 2. Access the CLI on the switch.

Follow the instructions in the previous "Using the CLI to configure a switch" section.

#### 3. Enable IP.

At the CLI, enter the command:

```
ENABLE IP
```

#### 4. Assign an IP address to VLAN1.

Assign the VLAN1 interface an IP address in the subnet that the PC uses, using the command:

```
ADD IP INTERFACE=vlan1 IP=ipaddress MASK=mask
```

### 5. Browse to the GUI.

If you access the Internet through a proxy server, set your browser to bypass the proxy for the IP address you just assigned to the VLAN1 interface.

Point your web browser at the IP address of the VLAN interface.

### 6. Log in and set the password.

At the log in prompt, enter the log in name and password. Passwords are case sensitive.

User Name: **manager**

Password: **friend**

The system status page appears and you can now use the GUI to configure the switch.



*To ensure configuration settings are saved correctly, use the GUI menus and buttons to navigate, not your browser's buttons.*



*As a security precaution, change the password as soon as possible.*

To change the password, select Management > Users from the sidebar menu. Select the Manager account and click Modify.

### 7. To access context-sensitive help in the GUI.

Click on the Help Button [Help]. The Help button is located at the top of the sidebar menu or on any popup page.

## System LEDs

### System LEDs

LED	State	Function
Power	Green	The switch is receiving power and the voltage is within the acceptable range
Fault	Red	The switch or management software is malfunctioning
	1 flash	A switch fan has failed. (The LEDs will not indicate an RPS fan failure.)
	3 flashes	If an RPS is connected, the switch's PSU (Power Supply Unit) has failed
	4 flashes	If RPS monitoring is enabled, the RPS PSU has failed
	5 flashes	If RPS monitoring is enabled, an RPS is not connected or is not operational

## System LEDs

LED	State	Function
RPS <sup>1</sup> (Redundant Power Supply)	Green	An RPS is connected to the switch
In use <sup>2</sup> (Rear panel)	Green	An NSM is installed, is receiving power, and is operational. The NSM and its PICs are not ready to be hot swapped
	Off	No NSM is installed, or the NSM is not installed correctly (the switch unit has not recognised the NSM)
Swap <sup>2</sup> (Rear panel)	Green	The NSM and its PICs are ready to be hot swapped
	Off	The Hot Swap button must be pressed before the NSM or PICs can be hot swapped, or the software release does not support hot swapping <sup>3</sup>

1. DC models of the Rapier Switch do not have an RPS connector and the RPS LED will not function.
2. Not included on the Rapier 48, G6, G6F-SX/SC, G6F-LX/SC, or G6F-SX/MT-RJ.
3. Hot swapping is supported by Software Release 2.3.1 or later. AT-AR021 (S) BRI-S/T, AT-AR021 (U) BRI-U, and AT-AR023 SYN PICs can be hot swapped.

The *Rapier Switch Hardware Reference* has further troubleshooting information, including information on Switch Port and Uplink Module LEDs.

## Documentation and Tools CD-ROM

The Documentation and Tools CD-ROM bundled with each Rapier Switch contains the complete Documentation Set for your switch and its expansion options, as well as tools for managing the switch. This includes:

- The *Rapier Switch Statutory and Safety* booklet, which provides safety and statutory information for the Rapier Switch and its expansion options.
- The *Rapier Switch Hardware Reference*, which provides detailed information on the hardware features of Rapier Switches.
- This Quick Install Guide.
- The *Rapier Switch Software Reference*, which provides detailed information on configuring the switch and its software.
- The *Network Service Module Quick Install Guide*, which outlines the procedure for installing an NSM; and the *Network Service Module Hardware Reference*, which provides detailed information on NSMs.
- The *Port Interface Card Quick Install Guide*, which outlines the procedure for installing PICs; and the *Port Interface Card Hardware Reference*, which provides detailed information on PICs.
- The *Uplink Module Quick Install Guide*, which outlines the procedure for installing an Uplink Module; and the *Uplink Module Hardware Reference*, which provides detailed information on Uplink Modules.
- AT-TFTP Server for Windows for downloading software releases.
- Adobe Acrobat Reader for viewing online documentation.